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09/314,738	05/19/1999	SHOLOM S. ROSEN	0225-4185	5587

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MORGAN & FINNEGAN LLP  
345 PARK AVENUE  
NEW YORK, NY 10154

EXAMINER

BARRON JR, GILBERTO

ART UNIT	PAPER NUMBER
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2132

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BEFORE THE BOARD OF PATENT APPEALS **Technology Center 2100**  
AND INTERFERENCES

Paper No. 17

Application Number: 09/314,738  
Filing Date: May 19, 1999  
Appellant(s): ROSEN, SHOLOM S.

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David V. Rossi  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 20, 2002.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

This appeal will directly affect the Request for Interference filed May 19, 1999. A copy of this paper is included as Exhibit A of this appeal.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1-11 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

No prior art is relied upon by the examiner in the rejection of the claims under appeal.

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:  
As copied from the Office Action (final rejection) mailed September 20, 2001.

***Claim Rejections - 35 USC § 112***

Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1-11 have been presented as corresponding to claims 1-5, 12, and 15-18 of the Hiroya et al patent (5754,654). However, The instant written description does not provide support for all the elements of the claims.

In particular, the electronic ticket storage device of claims 1, 6, and 11 does not have support in the written description as recited in the claims. The limitations of the claims recite that the electronic ticket storage device stores electronic money, an electronic ticket, and a transaction history including transactions of electronic money and electronic tickets, and where said transaction history is updated, by a program stored in said electronic ticket storage device, after a transfer of either electronic money or an electronic ticket.

The disclosure of the instant application is directed to a transaction device comprising a trusted agent and a money module. This arrangement for separate trusted agent and money module components, is in keeping with the objectives of the instant application for a flexible, anonymous and trusted electronic system, see Summary of the Invention.

It is not established how the proposed claims, which set forth an invention that teaches away from separate components, could be supported by a disclosure that describes an invention having separate components, and the benefits and uses of the invention that is comprised of the separate components. Part of Applicant's Request for Interference, references that the functions of the money module are supported by an earlier application, separate from the instant application, describing the money module as a completely separate component.

The claimed electronic ticket storage means further requires an update feature and a transaction log history having the information for both electronic money and electronic tickets. The instant disclosure appears to disclose separate transaction history logs and a different update function in keeping with the nature of the separate components of trusted agent and money module.

In addition to the lack of support for the electronic ticket storage device, claims 6-10 recite steps of sending, receiving, and recording of electronic tickets and money. However, these steps are not supported by the instant disclosure. The disclosure of the instant application appear to disclose sending and receiving tickets through the trusted agents, first, and then the sending and receiving of the electronic money, second.

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Further, the recording step is not disclosed. The instant disclosure does establish a commit function, but this does not appear as a recording step as necessitated by the claims.

Response to Arguments (this part was also copied from the final rejection):

Applicant's arguments are not persuasive. The portion of the specification pointed to as describing money module and trusted agent fabricated as a single tamper proof module does not provide a written description for the claimed invention of a electronic ticket storage means or device that stores electronic money, electronic ticket(s) and a transaction history. Applicant's specification describes an invention that provides for separate storage of electronic money, electronic ticket(s) and separate transaction histories for each. The written description describes separate communications between money modules and trusted agents. The description indicates that a fabrication of trusted agent and money module as a single tamper proof module would eliminate the requirement for secure communications between a money module and a trusted agent, but still describes the separate communications between money modules from customer to merchant, and trusted agents from merchant to customer, and separate transaction histories for each. Further, the description of the invention indicates that transaction device, Figure 3, #122, includes three components, host processor, 124, trusted agent 120 and money module 6. While the invention of the claims requires a terminal means separate from the electronic ticket storage means. Applicant's specification does not support a terminal means separate form the electronic ticket storage means.

**(11) Response to Argument**

The instant claims are designed to provoke an interference by copying claims from the Hiroya patent. Any claims, however presented, must meet the requirements of 35 USC 112, first paragraph, *In re Spina*, 975 F.2d 854, 24 USPQ2d 1142 (Fed. Cir. 1992),

"The description requirement of 35 U.S.C. Section 112 is the same for a claim copied for purposes of instituting an interference as for a claim presented during *ex parte* prosecution of a patent application. As stated in *In re Smith*, 481 F.2d 910, 178 USPQ 620 (CCPA 1973):

Satisfaction of the description requirement insures that the subject matter presented in . . . a claim subsequent to the filing date of the application was sufficiently disclosed at the time of filing so that the prima facie date of invention can fairly be held to be the filing date of the application. This concept applies whether the case factually arises out of an assertion of entitlement to the filing date of a previously filed application under Section 120 . . . or arises in the interference context wherein the issue is support for a count in the specification of one or more of the parties . . . or arises in an *ex parte* case involving a single application, but where the claim at issue was filed subsequent to the filing of the application. . . .

*Id.* at 914, 178 USPQ at 623-24 (citations omitted). See also *VasCath Inc. v. Mahurkar*, 935 F.2d 1555, 1562, 19 USPQ2d 1111, 1115-16 (Fed. Cir. 1991) (citing *In re Smith* )."

The instant claims are not exact copies of the patented claims. Appellant has amended the Hiroya claims by changing each occurrence of "means" to instead recite "device" in the claims on appeal.

It is the Examiner's position that despite this change in the claims, the claims under appeal, as copied from the Hiroya patent should be interpreted in the context of the patent from which [they were] copied, *In re Spina supra*

"When interpretation is required of a claim that is copied for interference purposes, the copied claim is viewed in the context of the patent from which it was

copied. *DeGeorge v. Bernier*, 768 F.2d 1318, 1322, 226 USPQ 758, 761 (Fed. Cir. 1985) (if claim language is ambiguous "resort must be had to the specification of the patent from which the copied claim came"). "

**I. Appellant's specification does not provide a written description of the claimed invention when the claims are viewed in the context of the Hiroya patent.**

The prosecution history of the Hiroya patent reveals that the claims were distinguished from the Rosen patents, both 5,557,518 and 5,621,797 were cited. See paper no. 6, Amendment A, pages 10 through 14, attached as Exhibit 1 herewith. In particular, at page 11, the claimed invention was argued as directed to an invention where the transaction history includes a history of a plurality of items, the electronic money and the electronic tickets. The transaction history storage area provides the transaction history for both the electronic tickets and the electronic money in one area.

In contrast, Rosen teaches separate money modules and trusted agents where each of these has its own transaction history. For example at page 25 of the Rosen specification, lines 1-21, the written description of an example transaction is "The trusted agent 120 therefore records the completed transaction in its transaction log and is now ready for a new transaction." The use of separate modules in the Rosen invention allows for the completion of its objectives, see page 2, last paragraph. The preferred embodiment provides for separate modules, see page 35, second paragraph and page 36, first paragraph.

The instant claims, when viewed in the context of the Hiroya patent, are directed to a device including a single area for storage of the transaction history for both the



electronic monies and the electronic tickets that are being transferred from vendor to customer. The instant claims, when viewed in the context of the Hiroya patent, are directed to an electronic ticket vending system including a single electronic ticket storage device. The electronic ticket storage device includes a single storage device that includes storage areas for storing electronic tickets, electronic money, transaction history, program(s) and a working area. The single storage area for a transaction history provides the security feature that a transaction history cannot be updated without at least one transaction (money or ticket) actually occurring, even if communication trouble occurs, see page 12, third paragraph of Exhibit 1.

In contrast the Rosen application does not provide a written description of such an invention. The instant Rosen application provides for separate trusted agents and money modules. The architecture described in Rosen allows flexibility for open electronic commerce with privacy and security, see page 2, Summary of the Invention. The flexibility, privacy and security of the invention is derived from the architecture where the use of separate money modules, which only handle electronic money, and trusted agents, which only interact with other trusted agents. Page 1, last paragraph, describes that the anonymity of the system is provided by the use of Money Modules. Each Trusted Agent has its own transaction history. Each Money Module has its own transaction history. Each Trusted Agent has its own program for controlling their designed transaction protocol, see page 6, last paragraph of the Rosen application.

**II Appellant's specification does not provide a written description of the claimed invention to show that at the time of the filing, the Appellant had possession of what is now claimed.**

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116.

The argument that passages of the description that disclose a trusted agent and money module may be fabricated as one tamper-proof module, do not provide a description of the claimed invention. The instant claims do not claim a physical device assembly or a manufactured integrated circuit module. The claims set forth an electronic ticket vending method and system including an electronic ticket storage device that itself includes a storage area for electronic tickets, electronic money and a transaction history. This differs from the Rosen invention that describes separate money modules and trusted agent modules, each with their own programs (designed transaction protocols) and separate transaction history log (for the described commit protocol and update log procedures).

Appellant argues that the description of the functionality of the trusted agent modules and the money modules, combined with the passages referring to the fabrication of the components as one tamper-proof module conveys to one skilled in the art the notice that Applicant invented the claimed subject matter. However, there is no teaching or suggestion in the description for this supposed resulting combination. Pages 13 through 28 of the Appeal Brief are replete with arguments for "eliminating", "modifying", "capable of" and "may be functionally integrated". However, these are all

arguments for modifying the described invention to result in the claims at issue.

Appellant does not point to any description where either, the resulting combination, as alleged, is described, or how one skilled in the art would take the suggestion to fabricate the trusted agent and the money module as one tamper-proof module, to combine the functionality of the modules. Indeed, the concept of the trusted agent as a separate functional entity cooperating with a money module and interacting with other trusted agents, is an explicit aspect of the invention. See page 6, line 16 of the specification, "the present invention introduces trusted agents 2, 4 for both the customer and merchant." To now allege that a modification that eliminates this distinguishing aspect would have been obvious to one skilled in the art, is contrary to the teachings of the written description.

**III. Appellant's written description does not convey a terminal means as claimed in the context of the Hiroya patent.**

A second aspect of the lack of a written description of the claimed invention, is the "terminal means" as claimed and described in the Hiroya patent. The "terminal means" of Hiroya is a separate unit that interacts with the electronic ticket storage device. It is a vending machine type, see Figures 1 and 3 which accepts the electronic ticket storage device to communicate with and interact with an electronic ticket vending & refunding device. In contrast, Appellant's specification describes a transaction device, Figure 3, #122, which is composed of three components: host processor #124, trusted agent #120 and money module #6, see page 13, under "Transaction Device". The transaction device which includes the host processor is described as an integral unit.

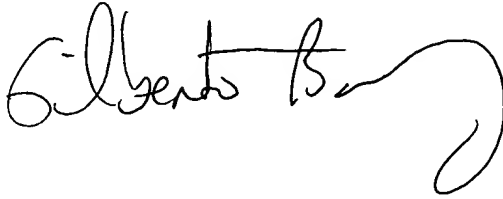
The terminal means of Hiroya is described as a separate machine that accepts the electronic ticket storage device.

**IV. Appellant's description of a host processor does not support "vending" that is separate from the electronic ticket storage device.**

The claimed invention requires that the element referred to as the host processor provide "for executing at least one of vending and refunding of an electronic ticket." This does not merely imply that the Host processor serve as an intermediate node that passes along the electronic ticket or transaction signals during a vending or refunding session, but that the Host Processor responds to the electronic ticket storage device to vend or refund a ticket. Pages 13 through 15, describing the transaction device #122 of Figure 3 does not describe the functions of vending and refunding with respect to this element. Only with respect to the trusted agents and the money modules is the vending of an electronic ticket described, see pages 31 through 42. In the description of the refunding method, page 43, the host processor element is not referenced. Appellant argues that as the Host Processor sits between customer trusted agent and merchant trusted agent, it necessarily fits the claimed invention of a element for executing at least one of vending and refunding an electronic ticket. However, these recited functions are not merely descriptive of the transaction signals passing through this element, but are indicative of particular function(s) performed by this element in the claims at issue. For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Gilberto Barrón Jr.  
Primary Examiner  
Art Unit 2132

gbj  
November 22, 2002

Conferees: Matthew Smithers, Primary Examiner AU 2134 *MS*

Justin Darrow, Primary Examiner AU 2132 *JD*

MORGAN & FINNEGAN LLP  
345 PARK AVENUE  
NEW YORK, NY 10154



#6/1/17  
PATENT 12/1/17

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Masaaki Hiroya, et al.  
For : ELECTRONIC TICKET VENDING SYSTEM  
AND METHOD THEREOF  
Serial No. : 08/558,741  
Filed : November 16, 1995  
Examiner : S. Cangialosi  
Group Art Unit : 2202  
Last Office Action : May 16, 1997  
Attorney Docket No. : HIT 2 884

AMENDMENT

Assistant Commissioner  
For Patents  
Washington, D.C. 20231

Dear Sirs:

Responsive to the Office Action mailed May 16, 1997,  
please amend the application as follows:

In the Claims

Please amend claims 1-13 and 15-18 as follows:

1. (Amended) An electronic ticket vending system  
comprising:

electronic ticket vending means for generating an  
electronic ticket and executing at least one of vending and  
5 refunding by exchanging [said] the generated electronic ticket  
with electronic money;

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Cheryl Kobylinski  
(Typed in Printed Name of Sender)  
Cheryl Kobylinski

a communication line connected to said vending means;  
at least one terminal means connected to said  
communication line for executing input, output, [and]  
10 transmission and reception [so as to execute] for executing at  
least one of vending and refunding of an electronic ticket; and  
electronic ticket storage means having means for  
electronically connecting said terminal means for storing  
electronic money [and a purchased], means for storing an  
15 electronic ticket, and means for storing a transaction history  
including transactions of electronic money and electronic  
tickets, updated by a program stored in said electronic ticket  
storage means, at a transaction of at least one of electronic  
money and an electronic ticket;

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wherein by a request of one of purchasing and refunding  
of an electronic ticket by at least one of said terminal means  
and said electronic ticket storage means, at least one of said  
electronic ticket and said electronic money is sent from said  
electronic ticket vending means via said communication line.

2. (Amended) An electronic ticket vending system  
according to Claim 1, wherein said electronic ticket vending  
means [comprising] comprises:

5 ticket production means for producing a ticket;  
ticket transmission and reception means for  
transmitting or receiving an electronic ticket;  
money transmission and reception means for transmitting  
or receiving electronic money;  
money storage means for storing electronic money;  
10 transaction history storage means for storing a  
history, [()hereinafter referred to as a transaction history()],  
of transmitting or receiving at least one of electronic money and  
an electronic ticket; and  
encryption key storage means for storing an encryption  
15 key.

3. (Amended) An electronic ticket vending system according to Claim 2, wherein said ticket production means [comprising] comprises:

5 a microcomputer which has a program for producing [is set so as to produce] an electronic ticket from at least data indicating a ticket publication source and data indicating the price of a ticket.

4. (Amended) An electronic ticket vending system according to Claim 2, wherein said electronic ticket vending means further [comprising] comprises:

11  
; old

5 means for storing a secret key of an asymmetric encryption algorithm which varies with each ticket publisher and a public key [which forms] forming a counterpart to said secret key.

5. (Amended) An electronic ticket vending system according to Claim 1, wherein said electronic ticket storage means [comprising] further comprises:

5 [electronic ticket storage means for storing at least an electronic ticket;

electronic money storage means for storing at least electronic money;

transaction history storage means;]

10 an I/O interface [with the outside] as said means for electronically connecting said terminal means; and

a microprocessor [which is set so as to control] for controlling transmission and reception of an electronic ticket and electronic money, and storage of said transaction [the] history [thereof].

6. An electronic ticket vending system according to Claim 5, wherein said electronic ticket storage means further [comprising] comprises:

12a

means for storing encrypted ticket data; and



5 means for storing an electronic signature [which is]  
produced by encrypting the whole or a part of said ticket data by  
[said] a secret key of [the] an asymmetric algorithm;  
wherein said microprocessor is set so as to return] has  
a program for returning said encrypted ticket information in  
10 response to a first command obtained via said I/O interface [with  
the outside] for reading said encrypted ticket data, checking [as  
a response to said first command, check] the validity of a second  
command for reading data having said electronic signature [for  
said second command], and [return] returning said ticket  
15 information with said electronic signature [as a] in response to  
said second command when said microprocessor judges that said  
second command is valid.

---

7. (Amended) An electronic ticket vending system  
according to Claim 5, wherein said electronic ticket storage  
means comprising:

means for storing ticket information which is encrypted  
5 by [said] a secret key of [the] an asymmetric encryption  
algorithm; and

2 means for storing a public key which forms a  
counterpart to said secret key which encrypts said ticket  
information,

10 wherein said microprocessor [is set as to return] has a  
program for returning the result [which is] obtained by  
decrypting said encrypted ticket information by said public key,  
in response to a first command obtained via said I/O interface,  
[with the outside for reading said encrypted ticket data as a  
15 response to said first command, check] checking the validity of a  
second command of reading data having said electronic signature  
for said second command, and [return] returning said encrypted  
ticket information [as a] in response to said second command when  
said microprocessor judges that said second command is valid.

8. (Amended) An electronic ticket vending system according to Claim 6, wherein said microprocessor has a program for returning [is set so as to return] a response to the electronic signature which is sent together with said second  
5 command obtained via said I/O [physical] interface [with the outside] on whether there exists an electronic signature conforming to said electronic signature in said electronic ticket storage means.

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includ  
9. (Amended) An electronic ticket vending system according to Claim 5, wherein said microprocessor has a program for protecting [is set so that] an item relating to said electronic ticket, [cannot be deleted from said transaction  
5 history storage means] until said electronic ticket stored in said electronic ticket storage means is deleted.

10. (Amended) An electronic ticket vending system according to Claim 5, wherein said microprocessor has a program for storing [is set so as to store] electronic money in said electronic money storage means in [for] refunding of the ticket  
5 and for deleting [then delete] the electronic ticket to be refunded after the storage, said electronic ticket being [which is] stored in an [said] electronic ticket storage area of said electronic ticket storage means.

11. An electronic ticket vending system according to Claim 5, wherein said electronic ticket storage means further has an area for storing an invalid flag and said microprocessor further  
a comprising:

5 means for making said invalid flag corresponding to said electronic ticket to be refunded effective [valid] for refunding of the ticket and then transferring said electronic ticket to said electronic ticket vending means; and

means for deleting said electronic ticket stored in  
10 said electronic ticket storage area of said electronic ticket

storage means after completion of the transfer.

---

12. (Amended) An electronic ticket vending method in a system comprising electronic ticket transmission and reception means, at least one terminal means, and a communication line connecting said electronic ticket transmission and reception

5 means and said at least one terminal means, said method comprising:

a step of [storing electronic money and an electronic ticket and] sending a [the] purchased [purchase desire] electronic ticket to said electronic ticket transmission and reception means from at least one of the terminals connected to

10 an [the] electronic ticket storage means having means for [which can be] electronically connecting [connected] to said terminal

means, said electronic ticket storage means further having means for storing electronic money, an electronic ticket, and a

15 transmission history including transactions of electronic money and electronic tickets, updated by a program stored in said electronic ticket storage means, at a transaction of at least one of electronic money and an electronic ticket [via said communication line];

20 a step of sending a sending request for the purchasing [purchase] cost to the [said] purchase desire [desired] terminal, [side] when said electronic ticket can be vended from said electronic ticket transmission and reception means;

a step of sending the electronic money of said purchase cost to said electronic ticket transmission and reception means from said purchase desired [desire] terminal [side] via said communication line;

a step of sending said purchase desired [desire] electronic ticket to said purchase desired [desire] terminal [side] from said electronic ticket transmission and reception means after said electronic money is received; and

30 a step of receiving said sent electronic ticket on said terminal [side] and storing it in said electronic ticket storage

means connected to said terminal [side].

13. (Amended) An electronic ticket vending method according to Claim 12, wherein when said purchased electronic ticket is to be refunded, said method further comprising:

5 a step of sending a refunding request to said electronic ticket transmission and reception means from said terminal [side] via said communication line;

[and] a step of requesting sending of [said] electronic ticket [which is requested] to be refunded, [refund] to the electronic ticket storage means connected to said terminal  
10 [side];

13  
mtl  
a step of receiving said electronic ticket sent from said electronic ticket storage means via said communication line, and then confirming the validity of said electronic ticket to be refunded;

15 a step of sending electronic money of said ticket to be refunded [refund] to said terminal [side] via said communication line when said electronic ticket transmission and reception means judges that said electronic ticket to be refunded is valid as a result of the [said] confirmation stated in the receiving step;  
20 and

a step of transferring said electronic money to said electronic ticket storage means [device] from said terminal [means] receiving said electronic money.

14. (Amended) An electronic ticket refunding method in a system comprising electronic ticket transmission and reception means, at least one terminal means, and a communication line connecting said electronic ticket transmission and reception  
5 means, said method [and said at least one terminal means] comprising:

a step of [storing electronic money and an electronic ticket and] sending an electronic ticket refunding request to said electronic ticket transmission and reception means from at

10 least one of the terminals connected to an [the] electronic  
ticket storage means having means for [which can be]  
electronically connecting [connected] to said terminal means,  
said electronic ticket storage means further having means for  
storing electronic money, an electronic ticket, and a  
15 transmission history including transactions of electronic money  
and electronic tickets, updated by a program stored in said  
electronic ticket storage means, at a transaction of at least one  
of electronic money and an electronic ticket [via said  
communication line];

20 a step of [for] requesting sending of said electronic  
ticket [which is] requested to be returned [refund] to the  
electronic ticket storage means connected to said terminal [side]  
from said electronic ticket transmission and reception means;

25 a step of receiving said electronic ticket from said  
electronic ticket storage means via said communication line and  
then confirming the validity of the [said] received electronic  
ticket by said electronic ticket transmission and reception  
means;

30 a step of sending electronic money of the [said] ticket  
to be refunded [refund] to said terminal [side] via said  
communication line when said electronic ticket transmission and  
reception means judges that said electronic ticket is valid as a  
result of said confirmation stated in the receiving step; and

35 a step of transferring said electronic money to said  
electronic ticket storage means [device] from said terminal  
[means] receiving said electronic money.

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16. (Amended) An electronic ticket vending method  
according to Claim 13, further comprising:

45 a step of receiving said electronic ticket to be  
refunded, from said electronic ticket storage means by said  
electronic ticket transmission and reception means;

a step of storing [that] said electronic ticket to be  
refunded is received from said electronic ticket storage means;

a step of sending said electronic money to said electronic ticket storage means; and

10 a step of storing [that] said electronic money is sent to said electronic ticket storage means.

17. (Amended) An electronic ticket vending method according to Claim 12, further comprising:

a step of sending said electronic money to said electronic ticket transmission and reception means from said  
5 terminal [side];

a step of storing [that] said electronic money is sent to said electronic ticket transmission and reception means;

*Cond*  
a step of receiving said electronic ticket by said terminal [side]; and

10 a step of storing [that] said terminal [side] receives said electronic ticket.

18. (Amended) An electronic ticket vending method according to Claim 13, further comprising:

a step of sending said electronic ticket to be refunded to said electronic ticket transmission and reception means from  
5 said electronic ticket storage means;

a step of storing [that] said electronic ticket to be refunded is sent;

a step of receiving said electronic money from said electronic ticket transmission and reception means by said  
10 electronic ticket storage means; and

a step of storing [that] said electronic ticket storage means receives said electronic money.

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REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's Office Action of May 16, 1997. Re-examination and reconsideration are respectfully requested.

### The Office Action

Claims 1-18 were presented for examination. Claims 12-18 were rejected as being indefinite and for failing to particularly point out and distinctly claim the subject matter of the present invention. Claims 1-18 stand rejected as being unpatentable over either one of Rosen ('518) or ('797).

### The Non-Art Rejections

Applicants have reviewed claims 12-18, and where appropriate, have amended those claims to more particularly point out and distinctly claim the subject matter of the present invention. Applicants respectfully submit the amendments to these claims place the claims now in more proper form.

### The Art Rejections

By way of brief review, the present invention is directed to an electronic ticket vending and/or refunding system. In the present invention, an electronic ticket storage means has a transaction history including transactions concerning electronic money and electronic tickets, which is updated by a program stored in the electronic ticket storage means upon a transaction of at least one of electronic money and an electronic ticket. As described in the specification of the present invention, and as claimed in independent claims 1 and 12, included is the concept an IC card which comprises an IC chip as illustrated in Figure 4. Unique features of the present invention include, (1) the transaction history is updated by a program stored in the electronic ticket storage means (IC card); (2) the transaction history is a history including transactions of electronic money and electronic tickets, as shown in Figure 8 and disclosed on page 43, line 21 - page 44, line 14, etc.; (3) the transaction history is updated, upon a transaction of at least one of electronic money and an electronic ticket, as disclosed on page 43, line 21 - page 44, line 14, etc.; and (4) the electronic ticket storage means includes means for storing

electronic money, means for storing electronic tickets, and a transaction history including transactions of the electronic money and electronic tickets. Particularly as to (4), claims 1 and 12 set forth that the electronic ticket storage means (IC card) of the present invention stores three kinds of data, i.e. electronic money, electronic tickets, and a transaction history.

On the otherhand, turning attention to the cited and applied Rosen patents ('518 and '797), these disclose a transfer history 18 (Figure 2 of Rosen '797) which contains information generated when tickets are transferred between trusted agents (column 7, lines 49-52). All that is taught by Rosen with regard to transaction history, is a history of transferring one kind of item such as tickets and not transactions including a plurality of items.

Contrary to Rosen, the transaction history of the present invention is the history including a plurality of items, transactions of electronic money and electronic tickets as stated in regard to features (2) above, and included in the language of claims 1 and 12.

With attention to the above discussed features (1) and (3), which not that the transaction history is updated by a program stored in the electronic ticket means (IC card) and that the transaction history is updated, upon a transaction of at least one of electronic money and an electronic ticket, these features render the electronic ticket storage means (IC card) of the present invention as a so-called tamper-proof device which protects the IC card, etc. from re-writing the storage information by any outside means except an allowed procedure.

Further, feature (1) is directed to the concept that the transaction history of the present invention is updated (only) by a program stored in the electronic ticket storage means (IC card) and as discussed in connection with feature (3), the transaction history of the present invention is updated (only) at a transaction for at least one of electronic money and electronic ticket. Thus making the system tamper-proof.



Nothing is taught or suggested in Rosen as to a tamper-proof device of any configuration similar to the features (1) and (3) discussed.

With continued attention to claims 1 and 12, the electronic ticket storage means includes means for storing electronic money, means for storing electronic tickets and a transaction history including transactions of electronic money and electronic tickets. Therefore, as set forth in claims 1 and 12, the electronic ticket storage means (IC card) of the present invention stores three kinds of data, i.e. electronic money, electronic tickets and a transaction history. On the otherhand, Rosen teaches nothing regarding an IC card storing such a plurality of data. Conventionally, an IC card is known as storing one kind of data such as electronic money, IC card, an electronic ticket IC card, etc. The disclosures in the Rosen patents are based on this premise.

However, the configuration as stated in the above feature (1) has an advantage of improved convenience in undertaking transactions such as purchasing, refunding, sending or receiving data through a network which requires some payment of application fee, etc. since all such transactions can be attained automatically by the use of one card. Additionally, the transaction history is stored which provides evidence to the processes even if some communication trouble may occur in the course of mutual communications, etc.

On the otherhand, Rosen as well as other conventional systems require repeatedly setting and releasing of an electronic money IC card, and an electronic ticket IC card in a required order, and even when this is done, no evidence of a transaction history remains.

In view of the distinctions enumerated above, it is respectfully submitted that claims 1 and 12 which include concepts directed to these features distinguish the present claims over the cited Rosen patents. Claims 2-11 and 13 depend from independent claims 1 and 12 and, therefore, are also

believed to be distinguished.

In addition, with attention to claim 11, it is set forth that an invalid flag corresponding to a refund is made effective for rendering the rendering process tamper-proof. The invalid flag is disclosed as "deleteable flag" as shown in Figures 7 and 8 and their corresponding discussions.

As disclosed in the specification, when the invalid flag is made effective, the corresponding items are regarded as invalid although the items are entered in the table. For example, in the case of refunding of a ticket, the electronic ticket vending means confirms if the ticket is truly returned and received by itself, and if confirmed then the corresponding electronic money is sent to the requesting terminal, and after receiving the acknowledgment, the effectuated invalid flag is released. In the course of such a process of transactions of money, ticket, and acknowledgments, the invalid flag is made effective which protects the corresponding item from re-writing, updating or deletion until the confirmation is over. Thus, the tamper-proof operation is ensured.

With regard to this operation, Rosen describes in column 13, line 52 to column 15, line 28 a captioned "Abort And Commit", exemplifying a case of a ticket transfer from A to B. At first both A and B provisionally retain the ticket. If both A and B commit, then A will delete its ticket and B will release the provisional state. In the course of this commitment, if A first sends a message "commit" to B and thus B commits and then B sends a message "commit" to A, if the latter message does not reach A due to communication trouble, then there arises a problem that both A and B retain the ticket and cannot return to the correct status. The use of the "invalid flag" of the present invention eliminates the occurrence of such problems. Applicants respectfully submit this use of deleteable flag is not taught or fairly suggested in Rosen.

With regard to additional distinctions, claim 4 recites a tamper-proof configuration using an asymmetric encryption

algorithm. Claims 6 and 8 recite a tamper-proof configuration using an electronic signature and checking validity of a command for reading data, in addition to the asymmetric encryption algorithm. Claim 7 recites a tamper-proof configuration checking validity of a command for reading data, in addition to the asymmetric encryption algorithm. Claim 13, independent claim 14 and its dependent claims 16 and 18 recite a tamper-proof configuration checking a validity of a ticket. Applicants respectfully submit that Rosen does not teach or fairly suggest any concepts directed to these tamper-proof configurations.

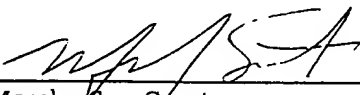
For the reasons recited above, it is respectfully submitted claims 1-18 are distinguished from Rosen.

#### CONCLUSION

Applicants have now amended the claims in an appropriate manner under 35 U.S.C. §112. Further, as applicants have noted distinctions between the claims and cited references, it is respectfully submitted all claims are now in condition for allowance. An early notice to that effect is, therefore, earnestly solicited.

Respectfully submitted,

Fay, Sharpe, Beall,  
Fagan, Minnich & McKee

  
\_\_\_\_\_  
Mark S. Svat  
Reg. No. 34,261  
1100 Superior Avenue  
Seventh Floor  
Cleveland, Ohio 44114-2518  
(216) 861-5582